

MILL CREEK 2 AND 3 HYDROELECTRIC SYSTEMS,
MILL CREEK 2 GENERATOR
Mill Creek
Yucaipa vicinity
San Bernardino County
California

HAER No. CA-2272-G

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

FIELD RECORDS

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of Interior
1111 Jackson Street
Oakland, California 94607

HISTORIC AMERICAN ENGINEERING RECORD

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Location: The Mill Creek 2 Generator (MC 2 Generator), known as Unit #1 is located within the Mill Creek 2 and 3 Powerhouse (MC 2 and 3 Powerhouse) at the southeast corner. The MC 2 and 3 Powerhouse is located just southeast of California State Route 38 (SR 38), immediately west and downhill from the associated penstocks. It is on USGS topographic map Yucaipa (Section 13; T.1S., R.1W.).

Significance: The MC 2 Generator (Unit #1), converted mechanical energy into electrical energy for MC 2 from August 3, 1904 until it was put out of service. Mill Creek 2 and 3 Hydroelectric systems are significant for being early examples of high-head hydroelectric systems that still exist today in the United States. These were also some of the first commercial three-phase alternating current stations in California. Three-phase alternating current later became the industry standard.

Description: The MC 2 Generator is located at the southeast interior corner of the MC 2 and 3 Powerhouse. Unit #1 was made by the General Electric Company with 250 K.V.A. 750 volt and 193 amp, and has patent dates ranging from 1888 to 1902. Its water wheel is a Pelton Water Wheel Company 350 horsepower Lombard Governor with the date stamp of 1904. It is 60 feet in diameter and its wheel carries 20 buckets.

History: When the MC 2 Powerhouse was originally constructed in November, 1899, there were two generating units. After MC 3 was added four years later, the two existing generators were taken out and moved to the Lytle Creek power station. On August 3, 1904, the current replacement unit was installed for MC 2.⁶² Please see the Historic Context section in the general Historic American Engineering Record for the Mill Creek 2 and 3 Hydroelectric Systems (HAER No. CA-2272) for additional information.

Sources:

Fowler, Frederick Hall. *Hydroelectric Power Systems of California and Their Extensions into Oregon and Nevada, Water-Supply Paper 493*. Washington, D.C.: Government Printing Office, 1923.

White, David R. M. "Cultural Resource Management Plan for the Southern California Edison Company Mill Creek Hydroelectric Project (FERC Project No. 1934) San Bernardino County, California," June 1993.

Low, George P. "The Generating, Transmission and Distribution Systems of The Edison Electric Company of Los Angeles, Cal.," *The Journal of Electricity, Power and Gas*. vol. XIII, no. 1. January, 1903.

⁶² "Redlands Electric Light & Power Co., Edison Electric Co. of Los Angeles, Mill Creek Power houses," *National Register of Historic Places Inventory – Nomination Form*, April 30, 1985, item number 7, 9.

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“Means Much to Redlands: Big Light and Power Deal Closed,” *Los Angeles Times*. May 25, 1901, 8.

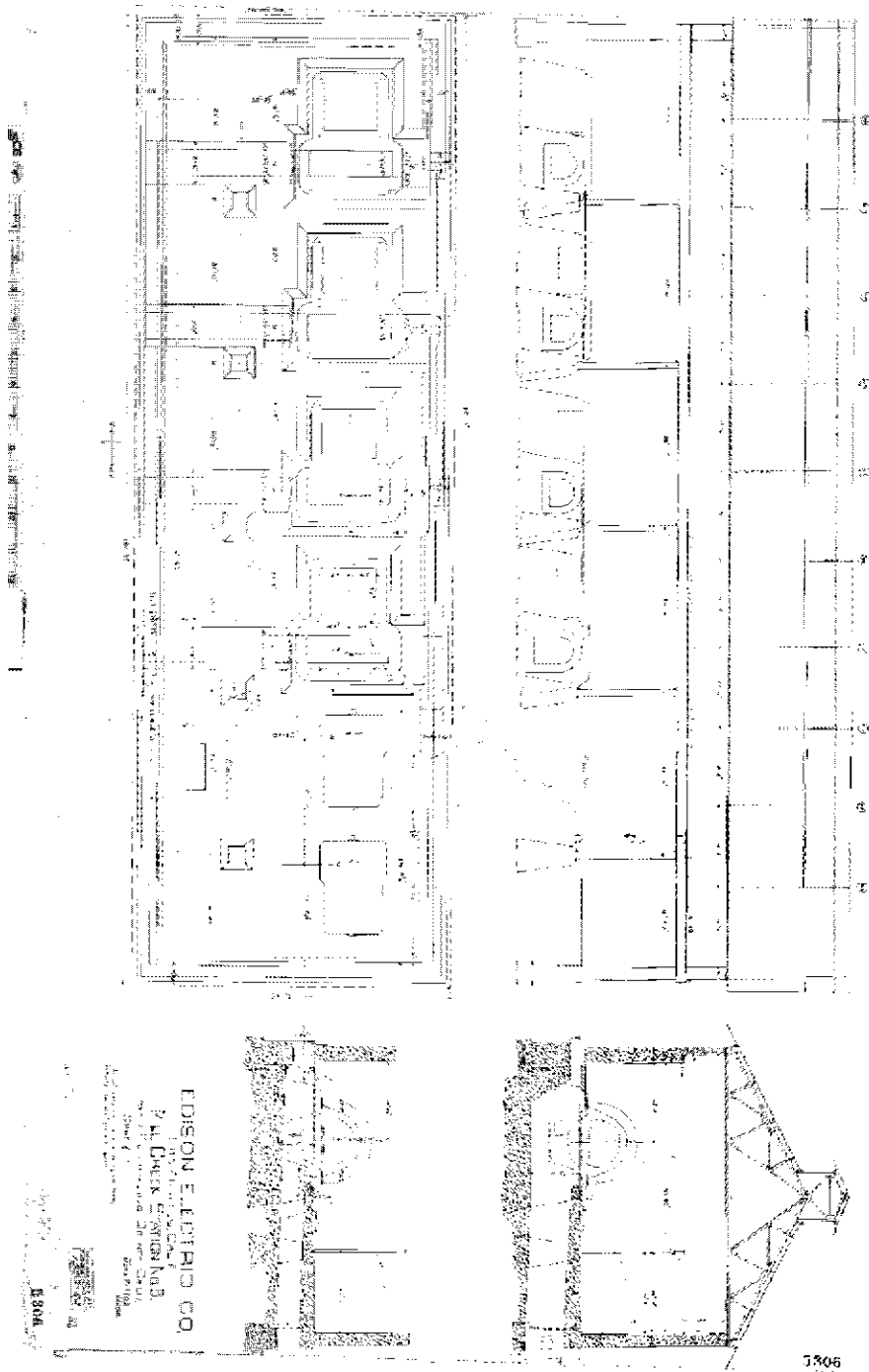
“Redlands Electric Light & Power Co., Edition Electric Co. of Los Angeles, Mill Creek Powerhouses,” *National Register of Historic Places Inventory – Nomination Form*, April 30, 1985, item number 7, 10.

Historian: Christeen Taniguchi, Senior Architectural Historian, and Nicole Collum, Architectural Historian II, Galvin Preservation Associates, 1611 S. Pacific Coast Highway, #104, Redondo Beach, CA 90277, 2008-2009.

Project Information: MC 2 has not operated since 1992 when it was damaged during floods. It was not, however, decommissioned. The Southern California Edison Company, in conjunction with the San Bernardino National Forest, the agency that owns the property, proposes to formally decommission the facility. This process will include filling the sandbox and forebay with slurry, and removing the metal features. Although MC 3 is still in operation, it is also being recorded as part of this project because of the system’s close association with MC 2.

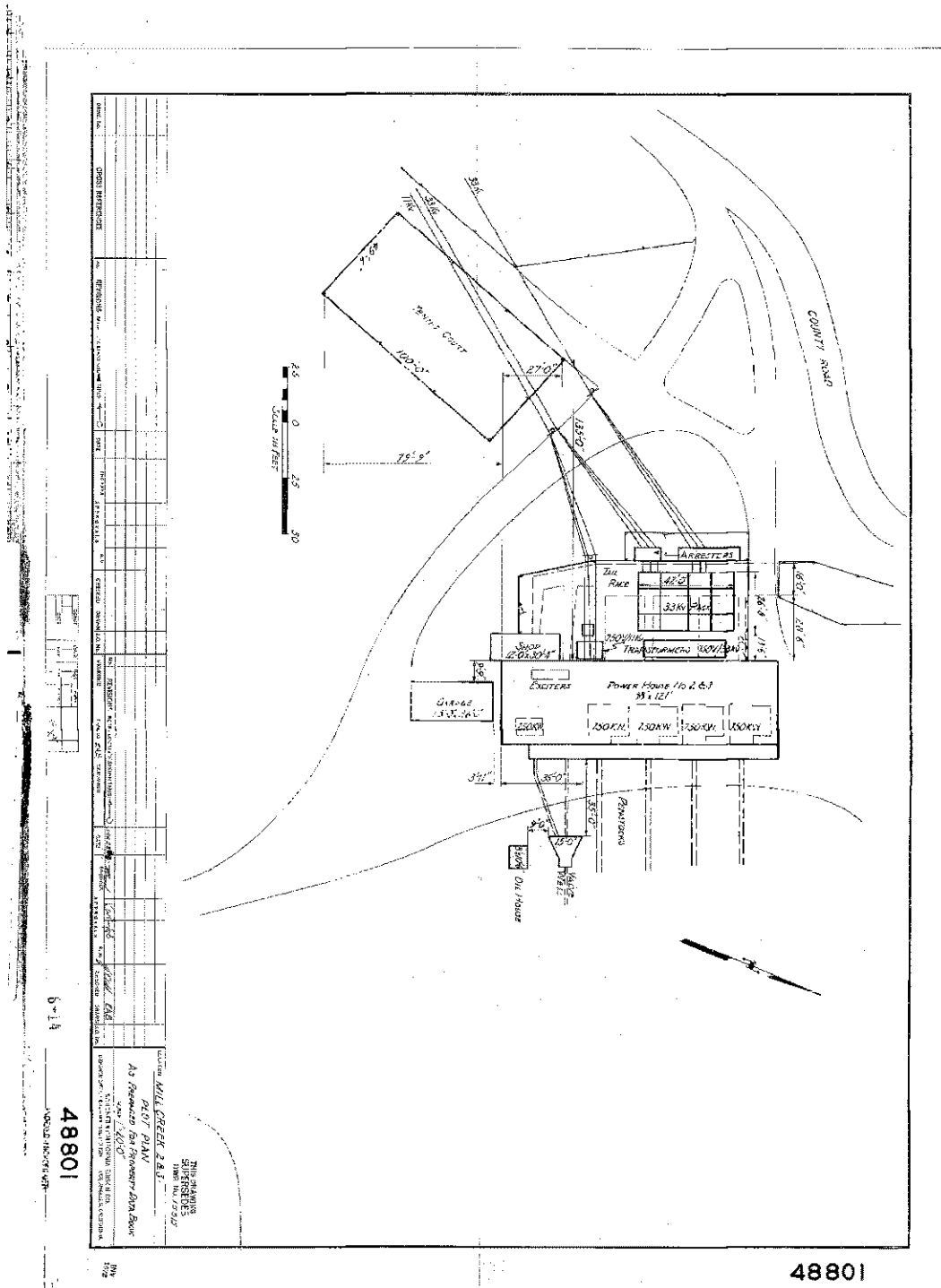
Location of Mill Creek Hydro Project Elements. (Map Courtesy of Southern California Edison)

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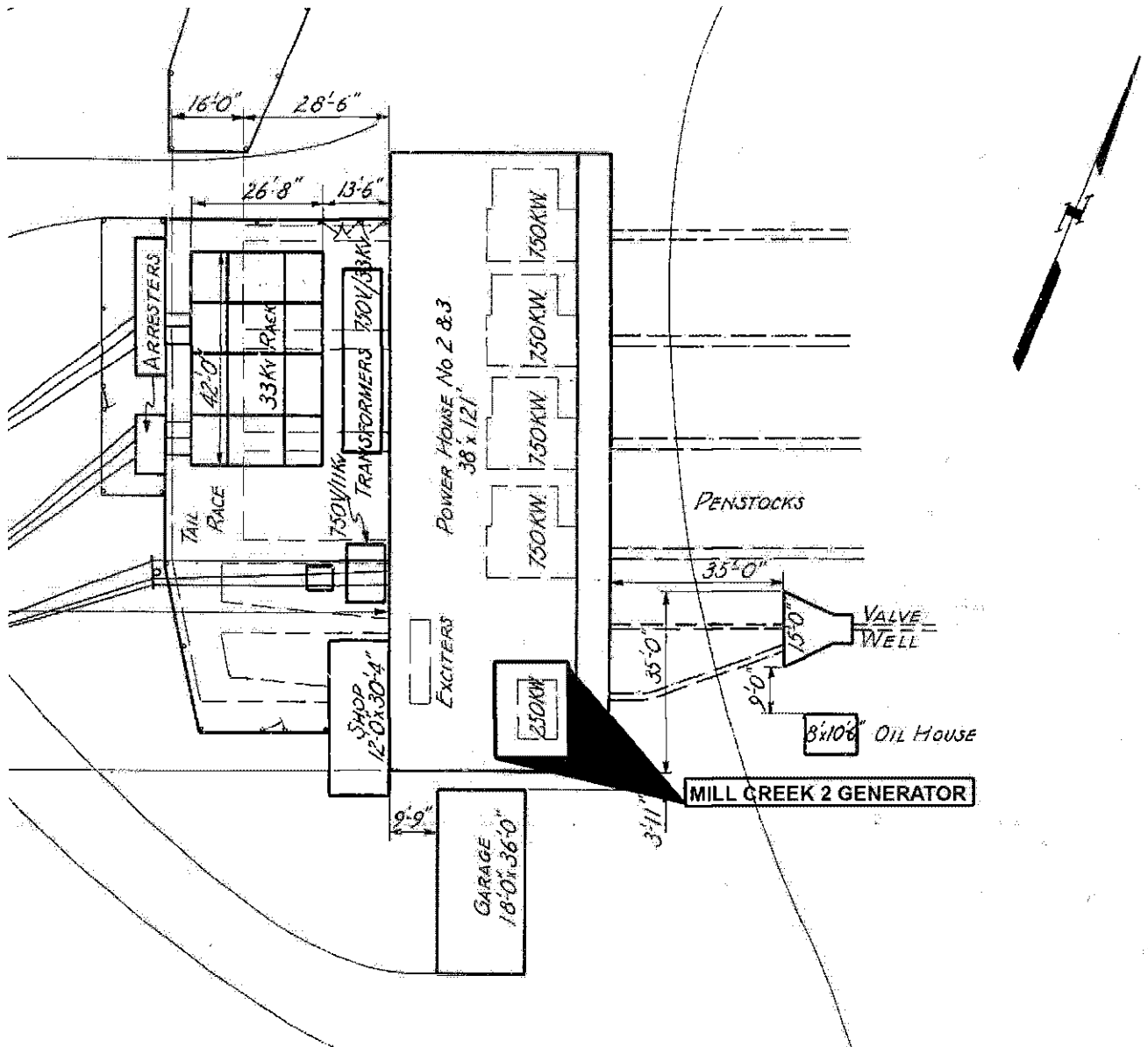
Mill Creek 2 and 3 Powerhouse Plan showing the location of the two original Mill Creek 2 Generators located in the southeast corner (Courtesy of Southern California Edison).

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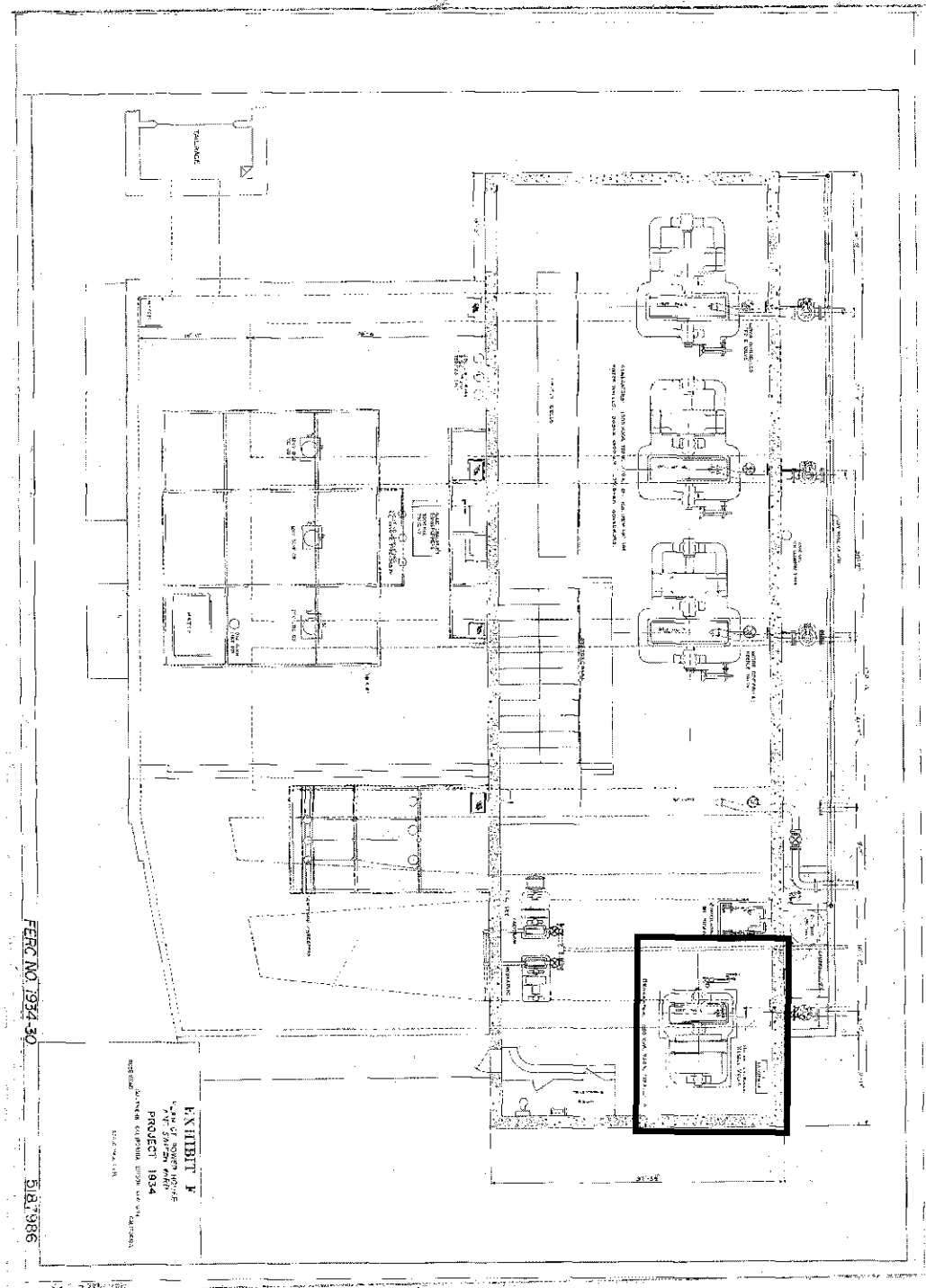
Mill Creek 2 and 3 Powerhouse Plot Plan. (Map Courtesy of Southern California Edison)

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Detail of Mill Creek 2 and 3 Powerhouse Plot Plan. (Plan Courtesy of Southern California Edison).

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Interior Floor Plan of Mill Creek 2 and 3 Powerhouse, Mill Creek 2 Generator is located in the southeast corner. (Map Courtesy of Southern California Edison).